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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,488	11/25/2003	Yasushi Sayama	2038-309	4367

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EXAMINER

EVANS, CHIVONNE LAURIE

ART UNIT	PAPER NUMBER
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3761

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/720,488	Applicant(s) SAYAMA ET AL.	
	Examiner Chivonne L. Evans	Art Unit 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

A.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

B.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2-10 are rejected under A.) 35 U.S.C. 102(b) as anticipated by or, in the alternative, under B.) 35 U.S.C. 103(a) as obvious over Pozniak et al (6099516).

2. Claims 2-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Pozniak et al (6099516). With regards to claims 4, and 6-8 Pozniak teaches a friction zone without any “tackifying agents” (Column 2, lines 52-53) whereas “tackifying” is defined as having loose or sticky fibers, therefore creating a surface to supplement the securing zone - not attached to the diaper in an adhesive manner. Therefore, it is inherent that the length of the fibers used in the materials disclosed by Pozniak was composed of continuous and short fibers, meaning that they were fibers of the length of 5-100 mm, as disclosed by the applicant. It is also disclosed by the applicant in the specifications

(page 12, lines 16-21) that if the content of elastic fibers in the fibrous mixture is not within 50-80%, then the desired friction will be too low or too high. Pozniak teaches a fibrous mixture that has a frictional value proved above to fall between, if not exact, the values stated by the applicant. Therefore, it is inherent that the fibrous mixture ratio that Pozniak teaches has to be consistent with the applicant's ratio in order to produce the frictional force that is disclosed by the applicant. Also, the lengths of the fibers disclosed by the applicant constitute an inelastic and elastic mixture of continuous and short fibers, which is also disclosed by the applicant, to prevent lifting of the fibers when the wings and the anti-slip surface are in contact with each other. Also, the material in the anti-slip zone (outer cover) can be formed by bonding (Column 6, lines 5-6), as taught by Pozniak and the materials of the cover, and the frictional element (tab or flap) can be of similar composition to the outer cover meaning that the melting points will be the similar (Column 8, Lines 14).

3. With regards to claims 2-10, Pozniak teaches a diaper with a front waist region (Figure 1, 10) and rear waste region (Figure 1, 14) and a crotch region (Figure 1, 18). Pozniak teaches a diaper having stretchable flaps or tabs (Column 8, lines 14-17 and column 2, line 58), (whereas a wing is defined as a side or subordinate extensions). The flaps, or extensions, have a frictional element (column 2, line 34 and Figure 2, 34) as well as a hook and loop fastener located at the distal end of the tab or flap (Column 2, line 29 and Figure 3, 40). The anti-slip zone that Pozniak teaches is a stretchable friction zone located on the outer cover (Column 3, lines 17-25 and Figure 1, 22)); the opposite lateral zone (front region 14) is broadened to form an extension, or wings, on

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the side (Figure 1, 10). The frictional zone adapted to come in contact with the flaps exhibited by Pozniak, maintain a frictional force of 0.5N or higher under a load of 58.23 g/9cm² and a frictional force of 5N or lower under a load of 340 g/9cm². This was determined using the coefficient of friction of 1.5 taught by Pozniak and the equation for frictional force calculation well known in the art. (* Please see below for detailed calculations). Also, Pozniak discloses elastic members along the waist (Figure 6, 31A) and leg elastics (Column 7, 30-35 and Figure 6, 28) and continuous elastic fibers made of plastic elastomer and continuous thermoplastic material (Column 8, lines 30-38).

*Frictional Force = Coefficient of friction * mass of solid * gravity

*i.e. Frictional Force under 340 g = 5.00N

Claim Rejections - 35 USC § 103

4. Claims 4-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pozniak in view of Shimoe et al. (6746433). With regards to claims 4, 11, and 13 and the claims dependent thereof; Pozniak discloses the invention as claimed except for a mixture of inelastic and elastic fibers in the anti-slip zone and the specified values for the length of the fibers. It is taught by Shimoe et al. (6746433) that the anti slippage sheets are formed using a ratio of elastic to inelastic fibers (Column 3, lines 1-5).

Although Pozniak lacks the specified values for the length of the fibers, it is obvious to find the optimum parameter by routine experimentation (see In re Boesch) to prevent the uplifting of fibers when in a frictional surface contact environment and it is also within the skill of those skilled in the art, as Pozniak also implies (Column 8, lines 19-58), to vary the ratio composition of inelastic to elastic materials to achieve an optimal frictional force; therefore creating anti-slip surface-to-surface contact. Therefore, it

would have been obvious to one having ordinary skill in the art at the time of the invention to provide Pozniaks' diaper with the claimed fiber mixture of inelastic and elastic fibers of 50-80% and fiber lengths between 5-100 mm in order to obtain a desired security and comfort of a diaper.

Response to Arguments

5. Applicant's arguments filed on 10/12/2005 have been fully considered but they are not persuasive.
6. The applicant argues that the anti-slip zones are comprised of a mixture of inelastic and elastic fibers. As stated above, Shimoe et al. (6746433) teaches that it is common knowledge, when anti- slippage is desired to combine a ratio of elastic to inelastic fibers.
7. The applicant argues with respect to original claim 3, that the slip zone taught by Pozniak is not adjacent to the anti-slip zone. However, where a portion of an area is void of anti-slip, the portion is a slip zone, therefore there is a slip zone located adjacent to the anti-slip zone.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chivonne L. Evans whose telephone number is 571-272-8686. The examiner can normally be reached on between 6:30-3:30, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chivonne L. Evans
Examiner
Art Unit 3761

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SUPERVISORY PRIMARY EXAMINER

